

08-09-01

A Box  
Seq**UTILITY PATENT APPLICATION TRANSMITTAL**  
**(Large Entity)***(Only for new nonprovisional applications under 37 CFR 1.53(b))*Docket No.  
PRO-107.2

Total Pages in this Submission

**TO THE ASSISTANT COMMISSIONER FOR PATENTS**Box Patent Application  
Washington, D.C. 20231

Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

**PYROPHOSPHOROLYSIS AND INCORPORATION OF NUCLEOTIDE METHOD FOR NUCLEIC ACID  
DETECTION**

and invented by:

John W. S hultz  
407 Melody Lane  
Verona, Wisconsin 53593  
USRyan J. Olson  
8551 Greenway Blvd., #310  
Middleton, Wisconsin 53562  
USChristine Andrews  
800 Whispering Way  
Cottage Grove, Wisconsin 53527  
USIf a **CONTINUATION APPLICATION**, check appropriate box and supply the requisite information:☐ Continuation ☐ Divisional ☒ Continuation-in-part (CIP) of prior application No.: 09/788,847

Which is a:

☐ Continuation ☒ Divisional ☐ Continuation-in-part (CIP) of prior application No.: 09/406,064

Which is a:

Which is a CIP of 09/358,972

☐ Continuation ☐ Divisional ☒ Continuation-in-part (CIP) of prior application No.: 09/252,436

Which is a CIP of 09/042,287

Enclosed are:

**Application Elements**

1. ☒ Filing fee as calculated and transmitted as described below
2. ☐ Specification having \_\_\_\_\_ pages and including the following:
  - a. ☒ Descriptive Title of the Invention
  - b. ☒ Cross References to Related Applications *(if applicable)*
  - c. ☐ Statement Regarding Federally-sponsored Research/Development *(if applicable)*
  - d. ☐ Reference to Microfiche Appendix *(if applicable)*
  - e. ☒ Background of the Invention
  - f. ☒ Brief Summary of the Invention
  - g. ☐ Brief Description of the Drawings *(if drawings filed)*
  - h. ☒ Detailed Description
  - i. ☒ Claim(s) as Classified Below
  - j. ☒ Abstract of the Disclosure

# UTILITY PATENT APPLICATION TRANSMITTAL (Large Entity)

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## Application Elements (Continued)

3. ☐ Drawing(s) (when necessary as prescribed by 35 USC 113)
- a. ☐ Formal                      Number of Sheets \_\_\_\_\_
- b. ☐ Informal                      Number of Sheets \_\_\_\_\_
4. ☒ Oath or Declaration
- a. ☐ Newly executed (original or copy)      ☒ Unexecuted
- b. ☐ Copy from a prior application (37 CFR 1.63(d)) (for continuation/divisional application only)
- c. ☒ With Power of Attorney      ☐ Without Power of Attorney
- d. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) named in the prior application,  
see 37 C.F.R. 1.63(d)(2) and 1.33(b).
5. ☒ Incorporation By Reference (usable if Box 4b is checked)  
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under  
Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby  
incorporated by reference therein.
6. ☐ Computer Program in Microfiche (Appendix)
7. ☒ Nucleotide and/or Amino Acid Sequence Submission (if applicable, all must be included)
- a. ☒ Paper Copy
- b. ☒ Computer Readable Copy (identical to computer copy)
- c. ☒ Statement Verifying Identical Paper and Computer Readable Copy

## Accompanying Application Parts

8. ☐ Assignment Papers (cover sheet & document(s))
9. ☐ 37 CFR 3.73(B) Statement (when there is an assignee)
10. ☐ English Translation Document (if applicable)
11. ☐ Information Disclosure Statement/PTO-1449      ☐ Copies of IDS Citations
12. ☐ Preliminary Amendment
13. ☒ Acknowledgment postcard
14. ☒ Certificate of Mailing
- ☐ First Class      ☒ Express Mail (Specify Label No.): EL706574770US

# UTILITY PATENT APPLICATION TRANSMITTAL (Large Entity)

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Docket No.  
PRO-107.2

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## Accompanying Application Parts (Continued)

15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
16. ☐ Additional Enclosures (please identify below):

## Request That Application Not Be Published Pursuant To 35 U.S.C. 122(b)(2)

17. ☐ Pursuant to 35 U.S.C. 122(b)(2), Applicant hereby requests that this patent application not be published pursuant to 35 U.S.C. 122(b)(1). Applicant hereby certifies that the invention disclosed in this application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication of applications 18 months after filing of the application.

## Warning

**An applicant who makes a request not to publish, but who subsequently files in a foreign country or under a multilateral international agreement specified in 35 U.S.C. 122(b)(2)(B)(i), must notify the Director of such filing not later than 45 days after the date of the filing of such foreign or international application. A failure of the applicant to provide such notice within the prescribed period shall result in the application being regarded as abandoned, unless it is shown to the satisfaction of the Director that the delay in submitting the notice was unintentional.**

**UTILITY PATENT APPLICATION TRANSMITTAL**  
**(Large Entity)**

*(Only for new nonprovisional applications under 37 CFR 1.53(b))*

Docket No.  
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Total Pages in this Submission

**Fee Calculation and Transmittal**

**CLAIMS AS FILED**

For	#Filed	#Allowed	#Extra	Rate	Fee
Total Claims	28	- 20 =	8	x \$18.00	\$144.00
Indep. Claims	5	- 3 =	2	x \$80.00	\$160.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
BASIC FEE					\$710.00
OTHER FEE (specify purpose) _____					\$0.00
TOTAL FILING FEE					\$1,014.00

- ☒ A check in the amount of **\$1,014.00** to cover the filing fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge and credit Deposit Account No. \_\_\_\_\_ as described below. A duplicate copy of this sheet is enclosed.
- ☐ Charge the amount of \_\_\_\_\_ as filing fee.
  - ☐ Credit any overpayment.
  - ☐ Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.
  - ☐ Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance, pursuant to 37 C.F.R. 1.311(b).

  
Signature

Dated: **August 7, 2001**

cc:

**CERTIFICATE OF MAILING BY "EXPRESS MAIL" (37 CFR 1.10)**

Applicant(s): John W. Shultz, Ryan J. Olson and Christine A. Andrews

Docket No.

PRO-107.2

Serial No.  
Not AssignedFiling Date  
August 7, 2001Examiner  
Not AssignedGroup Art Unit  
Not AssignedInvention: **PYROPHOSPHOROLYSIS AND INCORPORATION OF NUCLEOTIDE METHOD FOR NUCLEIC ACID DETECTION**I hereby certify that this Utility Patent Appn, Unexecuted Declaration and Power of Attorney and Postcard  
(Identify type of correspondence)is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under  
37 CFR 1.10 in an envelope addressed to: The Commissioner of Patents and Trademarks, Washington, D.C.20231-0001 on August 7, 2001  
(Date)Shannon L. Nebolsky

(Typed or Printed Name of Person Mailing Correspondence)

  
(Signature of Person Mailing Correspondence)EL706574770US

("Express Mail" Mailing Label Number)

Note: Each paper must have its own certificate of mailing.

# FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.

## Complete if Known

Application Number	Not Yet Assigned
Filing Date	Not Yet Assigned
First Named Inventor	John W. Shultz
Examiner Name	Not Yet Assigned
Group Art Unit	Not Yet Assigned
Attorney Docket No.	PRO-107.2 (6868/82379)

TOTAL AMOUNT OF PAYMENT \$1,014.00

## METHOD OF PAYMENT

1. ☒ The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:
- Deposit Account Number **23-0920**
- Deposit Account Name
- ☒ Charge Any Additional Fee Required Under 37 CFR §§ 1.16 and 1.17
- ☐ Applicant claims small entity status. See 37 CFR § 1.27
2. ☒ Payment Enclosed:
- ☒ Check ☐ Credit card ☐ Money Order ☐ Other

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity	Small Entity	Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
101	710	201	355			Utility filing fee	710.00
106	320	206	160			Design filing fee	
107	490	207	245			Plant filing fee	
108	710	208	355			Reissue filing fee	
114	150	214	75			Provisional filing fee	
SUBTOTAL (1)							710.00

### 2. EXTRA CLAIM FEES

Total Claims	Extra Claims	Fee from below	Fee Paid
28	-20** = 8	X 18.00 =	144.00
Independent Claims	5	-3** = 2	X 80.00 = 160.00
Multiple Dependent			

Large Entity	Small Entity	Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description
103	18	203	9			Claims in excess of 20
102	80	202	40			Independent claims in excess of 3
104	270	204	135			Multiple dependent claim, if not paid
109	80	209	40			** Reissue independent claims over original patent
110	18	210	9			** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) \$304.00

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)


### 3. ADDITIONAL FEES

Large Entity	Small Entity	Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
105	130	205	65			Surcharge - late filing fee or oath	
127	50	227	25			Surcharge - late provisional filing fee or cover sheet	
139	130	139	130			Non - English specification	
147	2,520	147	2,520			For filing a request for ex parte reexamination	
112	920*	112	920*			Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*			Requesting publication of SIR after Examiner action	
115	110	215	55			Extension for reply within first month	
116	390	216	195			Extension for reply within second month	
117	890	217	445			Extension for reply within third month	
118	1,390	218	695			Extension for reply within fourth month	
128	1,890	228	945			Extension for reply within fifth month	
119	310	219	155			Notice of Appeal	
120	310	220	155			Filing a brief in support of an appeal	
121	270	221	135			Request for oral hearing	
138	1,510	138	1,510			Petition to institute a public use proceeding	
140	110	240	55			Petition to revive - unavoidable	
141	1,240	241	620			Petition to revive - unintentional	
142	1,240	242	620			Utility issue fee (or reissue)	
143	440	243	220			Design issue fee	
144	600	244	300			Plant issue fee	
122	130	122	130			Petitions to the Commissioner	
123	50	123	50			Processing fee under 37 CFR § 1.17(q)	
126	180	126	180			Submission of Information Disclosure Statement	
581	40	581	40			Recording each patent assignment per property (times number of properties)	
146	710	246	355			Filing a submission after final rejection (37 CFR § 1.129(a))	
149	710	249	355			For each additional invention to be examined (37 CFR § 1.129(b))	
179	710	279	355			Request for Continued Examination (RCE)	
169	900	169	900			Request for expedited examination of a design application	
Other fee (specify)							

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3)

## SUBMITTED BY

Name (Print/Type)	Shannon L. Nebolsky	Registration No. (Attorney/Agent)	41,217	Telephone	(312)655-1500
Signature				Date	August 7, 2001

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on**

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.